



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,546	08/21/2008	Richard N. CODOS	LPPT-26US	2557

26875 7590 07/13/2010  
WOOD, HERRON & EVANS, LLP  
2700 CAREW TOWER  
441 VINE STREET  
CINCINNATI, OH 45202

EXAMINER
----------

NGUYEN, LAM S

ART UNIT	PAPER NUMBER
----------	--------------

2853

MAIL DATE	DELIVERY MODE
-----------	---------------

07/13/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/597,546	<b>Applicant(s)</b> CODOS ET AL.	
	<b>Examiner</b> LAM S. NGUYEN	<b>Art Unit</b> 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,8-11,14,15,18 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,7,12,13,16,17,19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/31/2008</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

In response to the restriction requirement, the applicant elected claims associated with Species II-B for further examination. As a result, only claims 1-3, 6-7, 12-13, 16-18, and 20 reading on Species II-B are included for further prosecution. Claims 4, 8, 9 reading on Species III, claim 10 reading on Species IV, claims 11, 14-15, and 21 reading on Species I, and claims 5 and 18 reading on Species II-A are withdrawn from consideration.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 6-7, 12-13, 16-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission as prior art (FIG. 1) in view of Gielen (US 5771050).

Applicant's admission as prior art (FIG. 1) discloses an ink jet printing apparatus comprising:

a frame (*FIG. 1, element 11*);

Art Unit: 2853

a bridge (*FIG. 1, element 17*) extending transversely across the frame and defining a printing station;

a feed system configured to advance a substrate (*FIG. 1, element 15*) longitudinally through the printing station;

a printhead (*FIG. 1, element 20*) moveable transversely across the bridge to print a row of the image across the substrate at the printing station;

a motion system configured to move the printhead longitudinally relative to the frame (*Specification, paragraph [0017] and FIG. 1: The linear servo motor 21 moves the printhead 20 relative to the frame 11*);

a controller operable to activate the feed system to perform an indexing motion of the substrate longitudinally a predetermined distance through the printing station (*FIG. 1: The controller 35 controls the motor 16 to move the substrate 15*);

a web position measurement device operable to measure and communicate to the controller a signal corresponding to an actual distance moved by the substrate during the indexing motion (*Specification, paragraph [0018]: The web position measurement device is the encoder 26 that outputs a measurement*

Art Unit: 2853

*signal in response to the movement of the substrate 15 and sends the signal to the controller 25).*

Applicant's admission as prior art however does not teach wherein the controller being operable to activate the motion system to move the printhead longitudinally a correction distance corresponding to the difference between actual distance moved by the substrate during the indexing motion less the predetermined distance, wherein the printhead is longitudinally moveable or its position is adjustable relative to the bridge by the motion system, and the controller is operable to activate the motion system to move the printhead longitudinally relative to the bridge to thereby move the printhead longitudinally the correction distance and scanning transversely in the adjusted longitudinal position.

Geilen discloses an ink jet printing apparatus comprising an inkjet printhead (*FIG. 3, element 12*) transversely scanning along a bridge (*FIG. 3, element 52*) for printing images on a printing medium moving in a longitudinal direction (*FIG. 3: The printing medium 50 moves in B direction*), means for detecting a deviation/difference/less in the advance amount and a correct amount (*column 5, lines 35-52*), and a motion system (*FIG. 3, element 28*) for moving the printhead relative to the bridge (*FIG. 3, element 52*) and along the longitudinal moving direction (*FIG. 3, direction B*) of the printing medium accordantly to the detected

Art Unit: 2853

difference, wherein the printhead scans transversely in the adjusted longitudinal position (*column 5, lines 35-52*).

Therefore, it would have been obvious for one having ordinary skill in the art at the time invention was made to modify the prior art printing apparatus admitted by the Applicant to include a motion system for moving the printhead in a manner as disclosed by Gielen. The motivation for doing so would have been to obtain a high degree of accuracy in registration as taught by Gielen (*column 2, lines 3-5*).

**Applicant's admission as prior art also teaches:**

**Regarding to claim 6:** the measuring the actual distance moved by the substrate includes measuring the distance relative to the longitudinal position of the printhead (*Specification, paragraph [0007]: The encoder measures the actual feed of the substrate relative to the printhead bridge*).

**Regarding to claim 17:** wherein the web position measurement device includes an encoder responsive to the motion of the substrate relative thereto (*FIG. 1, element 26*).

**Regarding to claim 19:** wherein the web position measurement device is fixed to the bridge (*Since the claim language does not provide evidence of the criticality of the claimed placement of the web position measurement device, the*

Art Unit: 2853

*placement of the device either on the frame or the bridge is just a matter of design choice. MPEP 2144.04 VI C. Rearrangement of Parts).*

### **CONTACT INFORMATION**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S. NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to

Application/Control Number: 10/597,546

Page 7

Art Unit: 2853

the automated information system, call 800-786-9199 (IN USA OR CANADA) or  
571-272-1000.

/LAM S NGUYEN/

Primary Examiner, Art Unit 2853